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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/798,682
Filing Date: March 11, 2004
Appellant(s): SCHWARTZ, JOEL A.

Robert C. Nabinger
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01/11/2010 appealing from the Office action mailed 05/14/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

The examiner notes that the amendment filed on 12/14/09 and referenced in applicant's footnote has been entered in an advisory paper dated 01/04/10 (before the 01/11/10 date of applicant's appeal - see paper number), and mailed on 01/14/10.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,226,943	GRINSHPUN ET AL.	05-2001
6,125,608	CHARLSON	10-2000
6,042,911	BERDAN, II	03-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

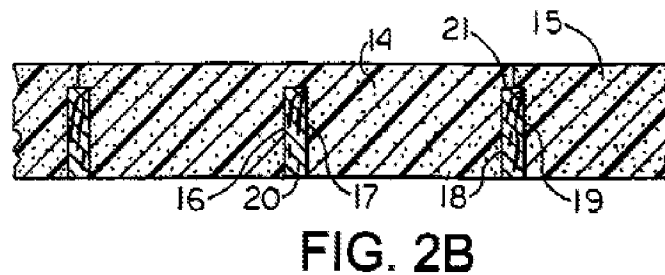
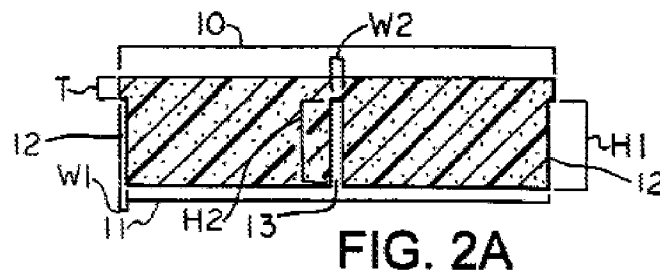
2. Claims 1,3-5 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Grinshpun et al. (U.S. Patent No. 6,226,943).
3. Regarding claim 1, Grinshpun et al. discloses an insulation panel having all of the applicant's claimed structure, including:
 - a. A single unitary insulation member (foam sheet, Fig. 2A, 2B) formed of a single rigid cellular insulating material (col. 4, lines 6-10) including a plurality of slots extending width-wise into the single rigid insulating material across one side of the member ("groove" 13, Fig. 2A, 2B; "The foam sheet of the invention may have any suitable number of grooves necessary to accommodate any number of support members," col. 6, lines 35-37; "As

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depicted, the foam sheet has two sections separated by a single groove.

However, it is within the scope of this invention to use a greater number of sections separated by a correspondingly greater number of grooves," col. 4, lines 16-20).

- b. The member including a wall at the base of each slot having a thickness of at least about 0.375 inch and less than about 1 inch ("The major side of the foam sheet which does not have grooves...preferably has a thickness T...of at least 0.5 inch...and most preferably no greater than 1 inch," col. 6, lines 13-18; Fig. 2A).
- c. The member having a thickness, in regions between the slots, of from about 1 to about 3 inches ("It is preferred that the height of the grooves be at least about 1 inch," col. 3, lines 66-67). The examiner notes that the height refers to H1 and H2 in Fig. 2A.
- d. The examiner notes that phrases such as "dimensioned to be mounted lengthwise on a joist header" and "dimensioned to receive an end of a floor joist" are considered to be functional language and not structural limitations. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.



Reproduced from Grinshpun et al.

4. Regarding claim 3, Grinshpun et al. discloses a wall, at the base of each slot, sufficiently thick to provide a thermal break between a joist and joist header (“T,” Fig. 2A; “The major side of the foam sheet which does not have grooves...preferably has a thickness T...of at least 0.5 inch...and most preferably no greater than 1 inch,” col. 6, lines 13-18; Fig. 2A).
5. Regarding claim 4, Grinshpun et al. discloses an insulating member with width substantially equal to the width of a joist header (“support member” 20 and “complimentary groove” 13, Fig. 2A, 2B; “the width of the grooves closely approximates the exact width of the support members,” col. 3, lines 8-9).
6. Regarding claim 5, Grinshpun et al. discloses slots extending across the entire width of the insulating member (Fig. 2A, 2B).

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7. Regarding claim 7, Grinshpun et al. discloses an insulating member made of polyurethane ("Examples of polymers which may be used to make a compressible and resilient foam include...polyurethane," col. 5, lines 35-38).
8. Regarding claim 8, Grinshpun et al. discloses slots capable of receiving an end of a wooden I-beam ("grooves" 13, Fig. 2A, 2B). "Grooves" 13 are capable of receiving any wooden I-beam whose top and bottom members were sized to fit in "groove" 13.
 - a. The examiner notes that phrases such as "dimensioned to receive an end of a wood I-beam" are considered to be functional language and not structural limitations. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.
9. Regarding claim 9, Grinshpun et al. discloses slots disposed at spaced intervals of 16 inches [claim 9] corresponding to predetermined spacing of the floor joists ("Typically, adjacent support members will be approximately regularly spaced...In the United States, adjacent vertical support members are most typically spaced 16 inches apart on center," col. 2, lines 40-46).

Claim Rejections - 35 USC § 103

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10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 13-20, and 22-23 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Grinshpun et al. (U.S. Patent No. 6,226,943) in view of Charlson (U.S. Patent No. 6,125,608).

13. Regarding claim 13:

- a. Grinshpun discloses an insulation panel as set forth above.
- b. Grinshpun does not expressly disclose a wood member bonded to the insulating member on a side opposite the slotted side.
- c. Charlson a wood member ("sheathing" 1330, Fig. 14; col. 1, lines 62-63) bonded (col. 3, lines 33-37) to a slotted insulating member on a side opposite the slotted side (1410, Fig. 14).
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the insulation panel of Grinshpun by bonding

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a wooden sheathing member to its unslotted surface as taught by Charlson, in order to provide a one-piece insulated sheathing member for building construction.

- e. The examiner notes the phrase “configured so that...construction” is considered a recitation of intended use. As such, it is given little patentable weight. That said, the sheathing member disclosed by Charlson could be considered a joist header, and member 220 could be considered a joist.

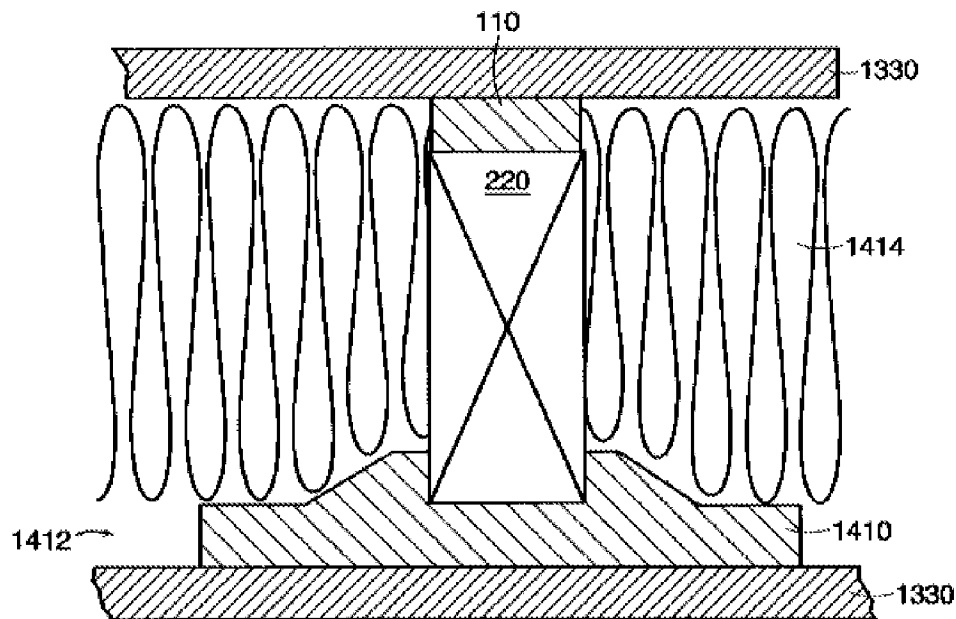


FIG. 14

Reproduced from Charlson

14. Regarding claims 14 and 20, Grinshpun et al. further discloses slots disposed at spaced intervals [claim 14] of 16 inches [claim 20] corresponding to predetermined spacing of the floor joists (“Typically, adjacent support members will be

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approximately regularly spaced...In the United States, adjacent vertical support members are most typically spaced 16 inches apart on center,” col. 2, lines 40-46).

15. Regarding claim 15, Grinshpun et al. further discloses a wall, at the base of each slot, sufficiently thick to provide a thermal break between a joist and joist header (“T,” Fig. 2A; “The major side of the foam sheet which does not have grooves...preferably has a thickness T...of at least 0.5 inch...and most preferably no greater than 1 inch,” col. 6, lines 13-18; Fig. 2A).
16. Regarding claim 16, Grinshpun et al. further discloses an insulating member with width substantially equal to the width of a joist header (“support member” 20 and “complimentary groove” 13, Fig. 2A, 2B; “the width of the grooves closely approximates the exact width of the support members,” col. 3, lines 8-9).
17. Regarding claim 17, Grinshpun et al. further discloses slots extending across the entire width of the insulating member (Fig. 2A, 2B).
18. Regarding claim 18, Grinshpun et al. further discloses an insulating member made of polyurethane (“Examples of polymers which may be used to make a compressible and resilient foam include...polyurethane,” col. 5, lines 35-38).
19. Regarding claim 19, Grinshpun et al. further discloses slots capable of receiving an end of a wooden I-beam (“grooves” 13, Fig. 2A, 2B). “Grooves” 13 are capable of receiving any wooden I-beam whose top and bottom members were sized to fit in “groove” 13.
 - a. The examiner notes that phrases such as “dimensioned to receive an end of a wood I-beam” are considered to be functional language and not structural

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limitations. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

20. Regarding claim 22, Grinshpun et al. further discloses member including a wall at the base of each slot having a thickness of at least 0.375 inch ("The major side of the foam sheet which does not have grooves...preferably has a thickness T...of at least 0.5 inch...and most preferably no greater than 1 inch," col. 6, lines 13-18; Fig. 2A).

21. Regarding claim 23, Grinshpun et al. further discloses a member having a thickness, in regions between the slots, of from about 1 to 3.5 inches ("It is preferred that the height of the grooves be at least about 1 inch," col. 3, lines 66-67). The examiner notes that the height refers to H1 and H2 in Fig. 2A.

(10) Response to Argument

Applicant states that Grinshpun teaches a foam sheet that is "compressible and resilient", that Grinshpun provides a test for distinguishing "flexible and resilient" foams from "rigid" foams, and that foams may need a rigid backing. Applicant's conclusion from these statements is that Grinshpun teaches foam sheets where at least a portion is flexible, rather than rigid. However, when describing the specific embodiment used in the rejection, Grinshpun states that the foam sheet "can be of a compressible and

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resilient material, as shown in Fig. 2A", and goes on to say that "[o]ther portions of the foam sheet can be more rigid" (c. 4, 6-10). This is a clear statement that, although the foam of 2A is capable of compression, it still maintains some rigidity, since other portions may be "more rigid". If the foam did not have some rigidity, it would be unnecessary to clarify that the other portions were "more rigid".

It should be noted that although Grinshpun provided differences between "flexible and resilient" and "rigid" foams, applicant has failed to provide any limiting definition of "rigid" in his own specification. During examination, claim terms are given their broadest reasonable interpretation consistent with the specification. *In re Prater*, 415 F.2d at 1404. Applicant's specification does not define the term "rigid" as having any special meaning. The broadest reasonable interpretation of the term "rigid" is that such limitation is met by any material having some amount of rigidity. The fact that a material has flexibility or resiliency does not preclude it from also having a certain rigidity, and thereby meeting the claim limitation.

Applicant further states that Grinshpun teaches that foams may need a rigid backing. However, this is a clear mischaracterization of the rejection and of the reference, as the rigid backing suggesting is directed towards Figs. 4, which show an embodiment not relied upon in the rejection.

Applicant again argues that Grinshpun does not teach a rigid foam sheet. The examiner refers again to the explicit statement by Grinshpun that other portions can be "more rigid" than the foam of Fig. 2A, and the lack of a definition of "rigid" in applicant's specification.

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Applicant argues that the rejection is based on the chance that somewhere there exists a foam that meets Grinshpun's tests for resiliency and rigidity in overlapping fashion. However, whether a material meets Grinshpun's tests for rigidity and resiliency is immaterial. As applicant has not provided any limiting definition of the term "rigid", the broadest reasonable interpretation of "rigid" is used to reject the claims. Grinshpun's specific test for rigidity is not the broadest reasonable interpretation of the term; a material that does not pass Grinshpun's test may still be considered "rigid" for the purposes of applicant's claims, assuming it has some amount of rigidity. Grinshpun has clearly stated that even materials that meet his test for resiliency have some amount of rigidity (c. 4, 6-10), thereby meeting applicant's claim limitations.

Applicant argues that Grinshpun/Charlson would not meet the limitations of claim 13, and suggests that since Grinshpun teaches the use of rigid foam backings, a wooden sheathing member would not be necessary for reinforcement purposes. However, this is a clear mischaracterization of the rejection, as the Grinshpun embodiment relied upon in the rejection (Fig. 2A) clearly does not include the secondary rigid foam layer present in other embodiments (e.g. Figs. 4). It would be well within reason to take an non-reinforced foam member and provide it with a reinforcing backing. The examiner notes that such a reinforcing configuration is taught by both Grinshpun (who provides a secondary, more rigid reinforcement layer in alternate embodiments) and Charlson (who provides a wooden sheathing reinforcement layer bonded to an insulating layer as set forth in the rejection).

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Applicant argues against Grinshpun/Charlson, stating that a flexible, compressible foam would not need a rigid support if the foam itself were rigid. As discussed above, a foam can meet the claim term "rigid" by having some amount of rigidity. This does not mean it necessarily has the same rigidity as a wooden board, or that it would not benefit from a backing member with a greater rigidity.

Applicant argues the substitution of Grinshpun's rigid foam backing with the wooden sheathing of Charlson. This is a clear mischaracterization of the rejection, as the Grinshpun embodiment relied upon has no secondary rigid foam layer to substitute, as discussed above. Furthermore, the rejection never hypothesizes or suggests such a substitution.

Applicant argues that the combination does not serve as a joist header. However, the examiner notes that applicant is not claiming a structure that would limit the combination to the position typically occupied by a joist header. Rather, applicant is claiming a member "configured so that the wood member will function as a joist header". Such a statement is limiting only in the sense that the wood member is capable of performing the functions of a joist header. There is nothing in the physical composition of the combination that would preclude its use as a joist header. Anyone who so desired could place the combined piece in a position typically occupied by a joist header, and it could function there as the ends of joists can clearly fit in the foam slots of the combination. Since the combination meets this capability, the rejection is proper.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/B. C. P./

Examiner, Art Unit 3633

/Richard E. Chilcot, Jr./

Supervisory Patent Examiner, Art Unit 3635

Conferees:

/Richard E. Chilcot, Jr./

Supervisory Patent Examiner, Art Unit 3635

/Basil Katcheves/

Primary Examiner, Art Unit 3635